



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,842	10/17/2001	Richard D. Rodrigo	713-258	6426

22429 7590 03/17/2003

LOWE HAUPTMAN GILMAN AND BERNER, LLP  
1700 DIAGONAL ROAD  
SUITE 300 /310  
ALEXANDRIA, VA 22314

EXAMINER

DOLE, TIMOTHY J

ART UNIT PAPER NUMBER

2858

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/868,842

Applicant(s)

RODRIGO ET AL.

Examiner

Timothy J. Dole

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wright et al.

Referring to claim 1, Wright et al. discloses an ionizer monitor (fig. 2) adapted to detect faults in an ionizer (fig. 2 (A)) having high voltage circuits (fig. 2 (14)), said monitor comprising a sensing circuit (fig. 2 (B)) able to be capacitively coupled (column 13, line 46 – column 14, line 2) to said high voltage circuits for detecting faults (column 8, lines 40-46).

Referring to claim 2, Wright et al. discloses the monitor as claimed wherein said ionizer has a reference circuit or an emitter circuit (fig. 2 (10)) and said sensing circuit is able to be capacitively coupled to a reference circuit or an emitter circuit of said ionizer (column 13, line 46 – column 14, line 2).

Referring to claim 4, Wright et al. discloses the monitor as claimed, further comprising an alarm display (fig. 6 (38)) coupled to said sensing circuit for indicating fault detection (column 8, lines 40-46).

Referring to claim 6, Wright et al. discloses a method of detecting faults in high voltage circuits of an ionizer without affecting operation of said high voltage circuits, said method comprising the step of: sensing the voltage of said high voltage circuits (column 13, lines 22-34) by capacitively coupling a sensing circuit with said high voltage

circuit (column 13, line 46 – column 14, line 2); and comparing the sensed voltage with a threshold voltage (column 8, lines 40-46).

Referring to claim 7, Wright et al. discloses the method as claimed, further comprising the step of displaying an alarm if said sensed voltage is less than or equal to said threshold voltage (column 8, lines 40-46).

Referring to claim 8, Wright et al. discloses the method as claimed wherein said ionizer has a reference circuit or an emitter circuit (fig. 2 (10)) and said sensing step includes capacitively coupling a sensing circuit with a reference circuit or an emitter circuit (column 13, line 46 – column 14, line 2).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. in view of Halleck.

Referring to claim 3, Wright et al. discloses the monitor as claimed wherein said ionizer monitor is usable in connection with an AC air ionizer (column 1, lines 9-14).

Wright et al. does not disclose that the AC air ionizer is a self-balancing ionizer.

Halleck discloses a monitor wherein the ionizer monitor is usable in connection with a self-balancing ionizer (column 5, lines 8-17).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the self-balancing ionizer of Halleck into the ionizer monitor of Wright et al. for the purpose of providing more efficient and cost effective balanced ion emission (column 2, line 27 – column 3, line 18).

Referring to claim 5, Wright et al. discloses the monitor as claimed except for a control circuit coupled to said sensing circuit for controlling said ionizer responsive to fault detection.

Halleck discloses a monitor with a control circuit (fig. 3 (33)) coupled to said sensing circuit (fig. 3 (20)) for controlling said ionizer responsive to fault detection (column 5, lines 4-19).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the control circuit of Halleck into the ionizer monitor of Wright et al. for the purpose of turning off the ion generator in the event of catastrophic failure of equipment whereby preventing damage to other circuit components (column 5, lines 17-19).

Referring to claim 9, Wright et al. discloses the method as claimed wherein said ionizer monitor is usable in connection with an AC air ionizer (column 1, lines 9-14).

Wright et al. does not disclose that the AC air ionizer is a self-balancing ionizer.

Halleck discloses a method wherein the ionizer monitor is usable in connection with a self-balancing ionizer (column 5, lines 8-17).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the self-balancing ionizer of Halleck into the method of Wright et al. for the same purpose as given in claim 3, above.

Referring to claim 10, Wright et al. discloses the method as claimed except for the step of controlling said ionizer in response to said sensing step sensing a voltage less than or equal to said threshold voltage.

Halleck discloses a method for controlling the ionizer in response to the sensing step sensing a fault (column 5, lines 4-19).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the control circuit method of Halleck into the method of Wright et al. for the same purpose as given in claim 5, above.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to show the state of the art with respect to high voltage monitoring.

USPN 4,794,329 to Schweitzer, Jr.: This patent shows an apparatus for a capacitively coupled fault-monitoring device for high voltage circuits.

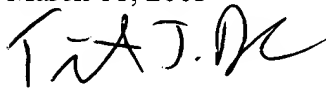
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Dole whose telephone number is 703-305-7396. The examiner can normally be reached on Mon. thru Fri. from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on 703-308-0750. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TJD  
March 11, 2003



*Christine K. Oda*  
Christine Oda  
Primary Examiner